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LOUISIANA Conservationist

LOUISIANA WILD LIFE AND FISHERIES COMMISSION

AY-JUNE
1962

Vol. 14 Nos. 5 & 6

May-June, 1962

Conservation Pledge

I give my pledge as an American to save and faithfully to defend from waste the natural resources of my country—its soil and minerals, its forests, waters and wildlife

Published monthly except May, June, July and August when bi-monthly in the interest of conservation by the Louisiana Wild Life and Fisheries Commission, Wild Life & Fisheries Building, 400 Royal Street, New Orleans, La.

Fishing for bream in the shadow of a cypress-studded shore is considered ideal recreation during the late spring and early summer days. This is a typical Louisiana scene throughout May and June. Balmy weather and the possibility of catching enough panfish for a satisfying fish fry are really side benefits when the main object is to get outside and away from the everyday routine.

(Art by Noel Jeffrey)

LOUISIANA Conservationist

LOUISIANA WILD LIFE AND FISHERIES COMMISSION

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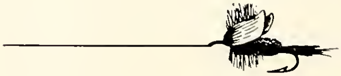

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Entered as second class matter August 21, 1947, at the Post Office at New Orleans, La., under the act of August 24, 1912.

EDITORIAL

IN THESE DAYS of staggering statistics and billion dollar budgets reported at a national level, it is sometimes difficult for all of us to evaluate statistical bulletins in terms of people, production, and profits; and the resultant effect on the economy of a single state.

This general attitude toward statistical reports could be noted recently when the the Bureau of Commercial Fisheries of the U. S. Fish and Wildlife Service announced that Louisiana's share of the total catch of fish and shellfish in the Gulf of Mexico amounted to more than 566 million pounds in 1960.

The catch not only put Louisiana in first place in the Gulf States, but lifted it to the top position in the nation for fisheries production during the year mentioned.

The Federal bulletin showed that the commercial catch of fish and shellfish brought into ports of the Gulf States in 1960 amounted to a record 1.3 billion pounds valued at 85 million dollars to the fishermen.

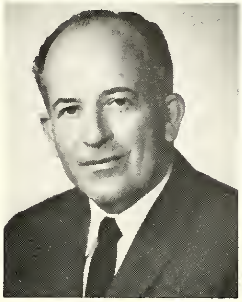
Louisiana led those states in volume landed with 45 per cent of the total Gulf catch. The 1960 catch for the Gulf was 111 million pounds and 8 million dollars above the previous year.

In dollars and cents, Louisiana's share of this catch was worth nearly 69 million dollars.

It should be pointed out that this money went to the state's fishermen. Additional millions of dollars were put into circulation by processing plants, freezing and refrigeration operations, transportation companies and retail outlets in the state of Louisiana.

The most valuable species of seafood are shrimp. In total value, represented on a national basis, shrimp composed roughly one-fifth of the entire seafood harvest of all species, both fish and shellfish, taken in the United States.

As shrimp fishermen, and all persons in Louisiana for that matter, know well; last year (1961) was a poor year for the shrimp industry. There have been such crop slumps in the past. Marine biologists have been studying this phenomenon for many years. We are searching for an answer to the problem. To that end, Louisiana marine biologists are presently working seven days a week compiling data that may eventually explain the rise and fall of shrimp populations.



L. D. YOUNG, JR.
Director

It should be clearly understood that Louisiana was not the only state which experienced a poor shrimp crop last year. Our sister states suffered a similar drop in production. This readily leads to the conviction that when a bad year does occur, it is the result of widespread factors. Other Gulf States are as anxious as we in Louisiana are to determine reasons for periodic poor shrimp years.

Intensified research in Louisiana and in the other Gulf States is bound to lead to scientific facts, and subsequently legislation that will reduce the impact of poor years upon the general economy of shrimp fishermen.

A bountiful supply of shrimp is of great importance not only to commercial operations but also to sportsmen who harvest a great poundage of shrimp for bait and for home consumption—with the latter amount not included in the production figures mentioned.

When one probes into the economic value to the state of the fish and shellfish production, there are certain facts that are brought into sharp focus.

First, there is no way to determine the amount of fish and shellfish, and the value thereof, taken by out-of-state vessels operating in Louisiana waters but landing their catch in out-of-state ports.

Then there is the unestimated value of fish and shellfish taken by sportsmen for home consumption.

There is little doubt that Louisiana's prominence as the greatest seafood state can be challenged only by those who do not dig deeply into the facts. When one does so, the findings stagger the imagination. +

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Camping In Louisiana

Grits Gresham

Tents are the traditional camp shelter, but this trailer-tent has found great favor in recent years. The gasoline stove, charcoal grill, ice chest, and folding table in the picture are almost standard items of camping gear. This is a campsite at Longleaf Trail Vista. (Photos by Gresham)

THE SLEEK BLACK Cadillac, now streaked with a newly acquired coat of dust eased between and around the scattered clusters of campers, coming to a stop beneath an evergreen when the driver finally found a vacant site. I watched with more than passing interest, since in my mind I had never associated the wheelhorse Caddy with outdoor living.

The man who stepped from the car was in his fifties, deeply tanned, and obviously in fine physical fettle. After a brief pause to stretch and look over the campsite, he took from the trunk a bedroll — sleeping bag and air mattress — and rolled it out on the ground. A gasoline lantern hung on a limb and a gasoline stove placed on the picnic table completed his "camp".

In five minutes he was relaxed in a folding camp chair, smoking a pipe. I woke the next morning to the aroma of his frying bacon and coffee perking, ingredients which he had taken from the ice box in the car trunk. Before we had finished breakfast the man had eaten, packed and gone.

Another time, at a roadside park on the flat plains of western Kansas, I watched an old station wagon stop fifty yards behind our trailer-tent. The wagon had hardly come to a stop when all the doors flew open as one, and a milling mass of youngsters spilled out and swarmed over the luggage rack on top.

In less time than it takes to tell it, or so it seemed, they had seven bedrolls of assorted size and description stretched out in a row on the grass. Later that evening we learned that a family rule was responsible for the speed in setting up camp: noboby could go to the restroom until the bedrolls were down.

The motives for camping in the two cases listed above were vastly different. The family of eight children and the parents were traveling from Utah to the east coast to visit relatives. Seven children slept outside, while mom, dad, and the baby slept in the station wagon.

"It's the only way we can afford to make the trip each summer", the man told me. "Can you imagine a motel and restaurant bill for ten people?"

The man in the Cadillac was obviously not concerned with the financial angle. His clothes as well as the auto bespoke of expensive tastes and the ability to satisfy them.

Camping has come of age, with more than five million American families participating in this outdoor activity each year. They go everywhere, with about 10,000 campgrounds available for them in the U. S. and Canada.

Never before in history has there been available such a wide variety of outdoor equipment designed to make camping easy and comfortable. If you have both the inclination and the money, you can lounge in as much luxury afield as you can find at home.

You can go to the other extreme, too, satisfied with a bedroll on the ground or an air mattress in a station wagon. Wherever you camp you'll likely find both of those extremes, and every degree in between.

Why camp?

For a family, especially, camping is the most economical way to enjoy a vacation.

One family of four took a five-week, 6,000 mile trek last fall, and their total tab for everything amounted to less than $12 per person per week. They used one of the camp "buses", several of which are on the market now, and the above figure included gasoline cost.

Hunters and fishermen often camp in order to be on the scene of their activity. Many lakes, streams, and hunting areas have no commercial food and lodging facilities on them, and there the sportsman either camps out or returns to town.

Keynoting the mushrooming interest in camping throughout the nation, however, is the simple fact that camping is fun.

A hamburger charcoaled deep in the forest, beneath the sighing needles of towering longleaf pines, tastes better than one cooked in the antiseptic cleanliness of a sparkling kitchen. Man and boy grow closer together when separated by a campfire than they do when separated by a television set.

Camping Equipment

One of the beauties of camping out is that you can make it as simple or as complex as you prefer. Basically, camping equipment can be divided into three groupings: 1. Shelter; 2. Bedding; and 3. Cooking gear.

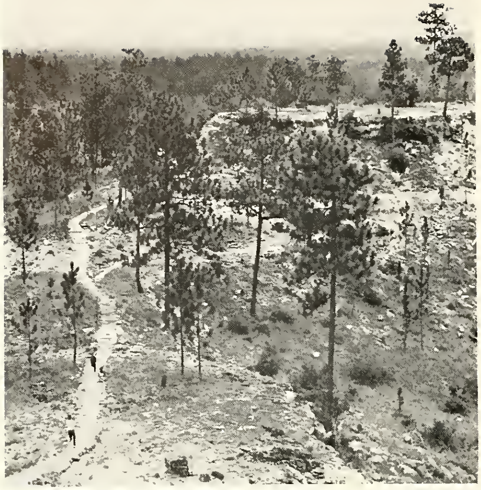
Like the man in the Caddy or the big family, you can elect to do without shelter. In that case you just plan to scramble into the auto in case it rains during the night. While this is fairly satisfactory for some of the more arid portions of the country, for camping in Louisiana it leaves something to be desired.

The classic camping shelter is the tent, and they now come in a bewildering array of sizes, shapes, materials, and even colors. Most popular are the umbrella tents with sewed-in floor, which are quickly and easily erected by one man. Next in favor are the wall tents, which generally have more room, take a bit longer to set up, and are more suitable for a camp which will be there for several days.

The simplest form of "tent" is a waterproof (or water-resistant) tarp of some material which can be used as a lean-to. This is a good compromise between doing without shelter and going to a full tent, and is used widely by hunters and fishermen.

The station wagon is a ready-made shelter, and all manner of unique accutrements are now

A station wagon is a built-in shelter for campers. Note the extra boot over the rear which increases the usable room. The house trailer in the rear is the ultimate in camping luxury.



Camping is a way to return to nature . . . it's fun. This view is from the Longleaf Trail Vista campground on Kisatchie National Forest.

available to add to the utility of the vehicle for camping. Some are screens for the windows, air mattresses contoured to fit the wagon body, shelves to hold gear up near the ceiling, and a canvas boot to cover the open rear end of the wagon, increasing considerably the size of the "room".

Many families sleep two or three children in the wagon, enabling the parents to use a smaller tent than would otherwise be the case.

Farther up the scale of camp shelter we find the trailers. One of the most unique is the trailer-tent, which folds down to a low-silhouette, two-wheel, compact unit for traveling. When the tent canopy on these is unfolded at the campsite, an operation which takes only five or ten minutes, there is sleeping and living room inside for four or five people.

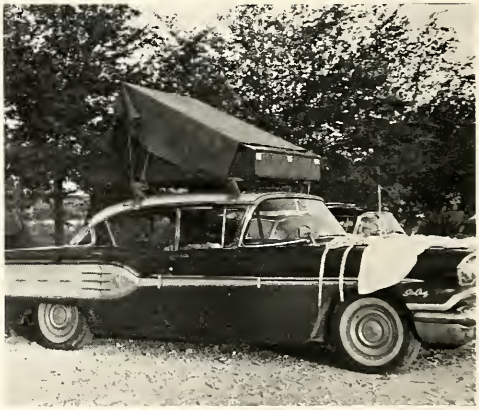
Some of Louisiana's shoreline, and especially the offshore islands, offer superb camping sites.

These are more expensive than are tents, but offer more comfort (foam mattresses, ice box, sink, water tank, etc.). Another feature of them which is especially appreciated by most ladies is the fact that their "camp" is up off the ground.

At the peak of the ladder of camping luxury is the full size house trailer. Between it and the trailer-tent are all degrees of size, style and price.

Another great innovation, many of which are on the market now, is the camper body which fits into the bed of a pickup truck. These have found great favor with campers in recent years. They're available from the stripped-down shell to those fully equipped with all sleeping and cooking gear.

All types of camp shelter have advantages and disadvantages. The above camper body, for instance, is excellent and flexible and will go almost anywhere a pickup truck will go, but first you've got to have a pickup.



This do-it-yourself camper built a box atop his auto for a full-size mattress, fitted it with a tilting top, and just climbed in at nightfall.

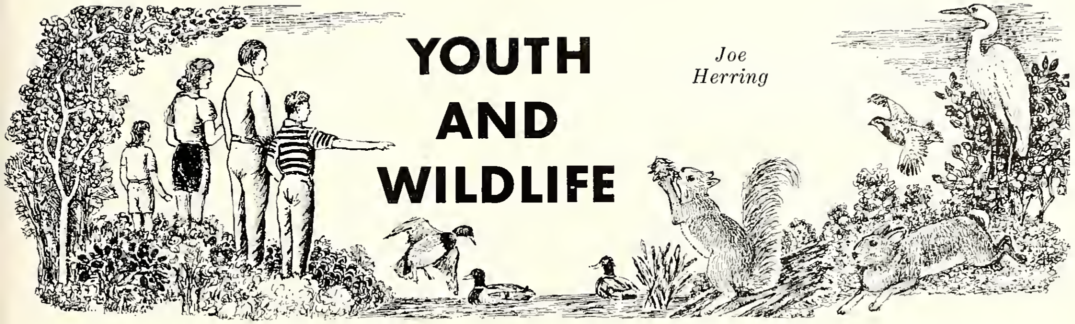
The best all-around bedding combination is undoubtedly the air mattress and sleeping bag. No matter how smooth the ground may look, it gets lumpy before the dawn comes if you sleep on it without protection.

Keep one thing in mind, especially if you're considering including the family in your activity: adequate, satisfying rest at night is a must if camping is to be enjoyable.

The folding camp cot plus blankets from home are fine as sleeping equipment in warmer weather, but odds are good that you'll find the air mattress-sleeping bag combo far more satisfactory and portable. Both of the latter come in a wide range of materials and prices.

To get started in camping you can borrow the kitchen equipment from your wife. Cooking over an open fire for any length of time is seldom satisfactory, however, so you should invest in a

(Continued on Page 20)



YOUTH AND WILDLIFE

Joe Herring

Wildlife Education TV Program

Television is the latest for the Louisiana Wild Life and Fisheries Commission as an aid to wildlife education.

In January of this year the Commission started its program titled "The Biology of Wildlife" over KLSE-TV, Channel 13, Monroe, Louisiana. KLSE-TV is owned and operated by the Louisiana State Department of Education with Mr. Gordon Canteberry, Director of the station. Mr. Richard Wall, Wildlife Instructor for the Louisiana Wild Life and Fisheries Commission, conducts the program each week.

Channel 13, an educational station, is viewed by school classes in the Ouachita, Richland, Caldwell, Jackson, and Union Parish area. Viewing audience not only includes school; but, program may be viewed in the homes of this area. "Biology of Wildlife" presented each Friday from 10:30 to 11:00 A. M. covers many phases of wildlife activities of the Commission throughout Louisiana. Research, development, enforcement in relation to oysters, fur, sport hunting and fishing are all combined into this spring's term program. Specialists from various fields of wildlife are guest on the program.

The nineteen week program covers most phases of wildlife from the Gulf of Mexico to the Arkansas line in Louisiana. Visual aids such as live animals, traps, photographs, charts, movies and other materials are used to produce the program. Animal species from over the state are used and have created much interest. On several occasions students have remarked after viewing the program that they did not realize some of the animals shown were found in Louisiana.

Wildlife Instructors Activities

Last month we included a form for school principals and teachers to fill in and return for programs. Response was very good on these cards and many programs have been presented as a result.

Wildlife Instructors presented 396 programs with an attendance of 12,731. All programs were presented on the wildlife resources of our state. Four television programs were presented over KLSE-TV during this same period.

Read With Me

Extinct and Vanishing Birds of the World by James C. Greenway, Jr. is just as the title implies. This is a compilation of the birds known and thought to be extinct as well as those that are threatened with extinction.

Beginning with a summation of those species and subspecies of birds known to be extinct, thought probably extinct, known from osseous remains, known only from pictures and descriptions, small populations of certain species, and some rare birds probably not in danger, the author continued with a discussion of the geography of extinction.

This 518 page publication is illustrated with numerous drawings and is published by the American Committee for International Wild Life Protection, New York Zoological Park, New York 60, New York. Price $5.00.

Visual Aids for Instruction

The Aurora Plastics Corporation produces a kit on butterflies for assembly. The kit contains a giant swallowtail, monarch and luna moth all belonging to the order *Lepidoptera*. Along with the kit one receives an information sheet that discusses each specie found in the kit. Such bits are educational, easy to assemble and attractive as visual aids. Butterfly kits may be purchased from your local hobby shop or Aurora Plastics Corporation, West Hempstead, Long Island, New York.

John D. Newsom, Chief, Fish and Game Division, discussing animals found in the marshes of Louisiana over KLSE-TV Louisiana State Department of Education, educational station. Richard Wall, Wildlife Instructor is looking on as Newsom holds up a fur pelt. The program pertaining to wildlife is presented each Friday at 10:30 a.m.

What You Should Know - - -

(Part One)

ABOUT SHARKS

Ednard Waldo

THERE ARE AN ESTIMATED 300 species of sharks recognized in the world today, say J. R. Thompson and Stewart Springer in a circular on sharks, rays, skates, and chimeras prepared for the Bureau of Commercial Fisheries of the U. S. Fish and Wildlife Service which was issued recently.

Despite widespread interest, accumulation of adequate knowledge concerning sharks and their close relatives has been slow and a large body of speculation and "old wives' tales" has arisen as an effort to fill in the gaps.

Many species are confined to relatively great depths where collection is difficult and expensive. Even those species that inhabit shallower, coastal waters require special collecting and handling techniques. They are difficult to keep in captivity, and their collection and study as living animals is quite expensive. But over the years zoologists have succeeded in amassing sufficient data to outline, in greater or lesser detail, the characteristic habits of many of the cartilaginous fishes.

In several instances, especially among the larger, far-ranging species, we have probably described the same sharks under more than one name, say the two scientists. There are, however, undoubtedly other species existing that have not been given names as yet, particularly in the deeper sections of the ocean and in the mid water realms that have not been thoroughly investigated.

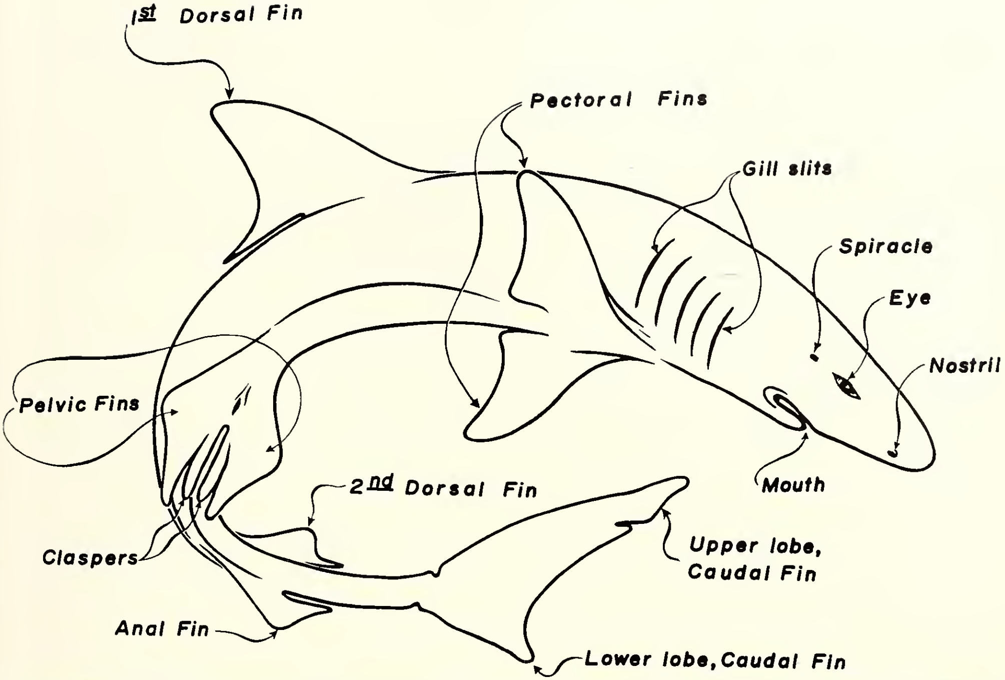
A few species, including the Greenland shark and the Pacific sleeper shark, inhabit very cold seas, but the variety and number of sharks are greater in tropical and subtropical waters. Sharks are present in greater variety, and probably also in greater abundance, in moderate depths—from 50 to more than 500 fathoms. Some sharks are found in much greater depths, although actual captures have not been made as yet in waters deeper than 1,500 fathoms (9,000 feet). There are also several species that inhabit very shallow waters along the coasts. These include some of the dogfishes, small blacktip sharks, hammerheads, nurse sharks, sand sharks, and sandbar sharks.

Despite their appearance, at times, in great concentrations, sharks are not normally abundant in comparison with many bony fishes. In the United States the spiny dogfish, one of the smaller sharks, is common off the coasts of New England and the Middle Atlantic States in the Atlantic Ocean and off the coasts of Washington and Oregon in the Pacific Ocean. In these areas it is, at times, common enough to be a great nuisance to commercial and sport fishermen. The larger sharks are less abundant.

The largest species, by weight, is the whale shark. Another large species, the basking shark, is somewhat less bulky, but about as long.

All sharks are primarily predators in the sense that they all feed on animal life. The variety of animal life consumed, however, is almost limitless, and nearly all sharks excepting perhaps such forms as the specialized basking sharks, are secondarily scavengers. Some sharks appear to be indiscriminate in their feeding habits. Curiously, the largest known species feed on the smallest prey, and some of the smallest sharks consume relatively large creatures.

The huge whale sharks and basking sharks are primarily filter feeders. These sharks swim with their mouths open and strain or filter out small planktonic organisms as the water, coming in through the mouth, passes over sievelike gill rakers and out through the gill slits. Examination of stomach contents reveal that these large sharks filter great quantities of small crustacea and minute fishes in this manner, and such small prey constitutes the primary source of food for them. On the other hand, there is little doubt that the whale sharks also, occasionally, consume larger prey. Fishermen have reported that whale sharks, feeding at the surface on great schools of small fishes, occasionally trap tunas which are also feeding on the small fishes and which, in their quest for food, follow the small fishes straight into the whale shark's mouth. Observations from the Bureau's exploratory research vessel *Oregon* have confirmed this behavior. Whale sharks have also been observed to drive tuna fishermen out of their fishing racks. But on the basis of accumulated evidence, the



Topography of a "typical" shark, illustrating terms used in description. (Sketch U. S. Fish and Wildlife Service)

whale shark is probably not ordinarily aggressive toward large creatures including man. It probably swallows objects only if they are taken incidental to its regular feeding activities. This, however, is sufficient reason for treating these huge and powerful sharks with caution.

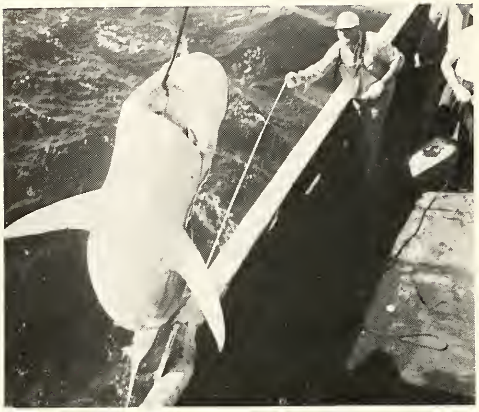
A few sharks, including the white shark and the tiger shark, normally attack large and active prey. Other sharks, including the smaller hammerheads, and small blacktip sharks seem to prefer crustaceans and small fishes. The tiger shark, which would normally be expected to obtain its food by active pursuit and capture of other fishes, sometimes haunts steamer lanes to gather in garbage. A large tiger shark, captured by the crew of the *Oregon,* contained not only food that had been thrown overboard several hours earlier, but also tin cans and milk cartons. Coastal fishermen frequently complain about sharks of several species which follow their vessels and tear up the nets to obtain the fish contained within.

Large sharks such as the white shark, the dusty shark, and the whitetip eat porpoises when they can capture them. Porpoises are much faster than sharks and can outrun them or drive them away. If, however, a porpoise is weakened through fatigue or severe injury and is isolated, it may meet a sudden end in an attack by sharks. Observations, made from the Bureau's research vessel *Oregon,* have substantiated tales of porpoises actively driving sharks away from their young and of schools of porpoises, the members of which would take turns driving off attacking sharks and resting. At other times, however, porpoises and sharks may even feed together on trash fish thrown from a boat, and the porpoises apparently have sufficient confidence in their own speed and strength that they do not waste energy attacking the sharks when the sharks are not aggressive.

Some of the smaller species, including the deep-water green dog shark, are thought by some to hunt in packs, because their stomachs often contain the beaks of squid and octopus, representing prey too large and agile for these small sharks to kill and eat alone.

Studies on sensory perception of sharks have been difficult to carry out satisfactorily. In the broadest connotation, the senses of sharks are similar to those of other animals. The sense of smell is presumed to be highly developed and has been shown experimentally to play a major role in food finding. Sharks also have a sense corresponding to our sense of taste, but organs for tasting are widely scattered over the skin of the head and even other parts of the body. Although this sense is in some way related to feeding habits, it is possible that in sharks it serves other functions as well. Sharks' eyesight is apparently adapted best for the detection of movement, but their eyes are extremely complicated structures, adapting especially to low light levels.

Some sharks have calcareous bodies in the chamber of the inner ear which are presumed to be associated with the sense of balance. Sharks are responsive to noises and pressure waves, but the importance of sound and pressure differentials to sharks is not well understood. Experimental procedures to determine the roles of the ears (internal) and the lateral line organs have met with only limited success.



This silky shark was caught while trying to rob a tuna longline. These large, oceanic sharks sometimes reach lengths of about 10 feet. (Photo U. S. Fish and Wildlife Service)

Sharks apparently have a very low intelligence level and many, if not all, of their activities are reflexive. The nervous system of the shark is decentralized to a much greater extent than it is in the higher vertebrates, and the areas of the brain usually regarded as thought centers are absent in sharks. Sharks have been shown experimentally to be capable of developing rather complicated responses to conditioning stimuli and may thus be able to learn at the reflex level.

The thresher shark has a peculiarly enlarged and elongated upper caudal lobe which, according to fishermen observers, it uses to stun its prey by "threshing" around in a school of fish. Its tail is one of the toughest flexible structures developed in the animal kingdom. Many other correlations between anatomy and mode of life can be pointed out. Fast-swimming, oceanic sharks, such as the mako and the white sharks, are streamlined and possess large stiff pectoral fins for stabilizers. In contrast, most rather sluggish sharks, such as the cow sharks, nurse sharks, and even the bull sharks, are less streamlined and often more bulky, or display adaptions to other ways of life. The large whale sharks, which engulf and strain their prey in great volumes of water, have terminally placed mouths to better facilitate their feeding. The basking sharks have extremely wide mouths nearly terminal in position to better engulf and strain greater quantities of water. Most other sharks have their mouths placed far ventrally.

Several deep-sea species, including probably the little green dog shark that lives at depths exceeding 1,000 feet, possess the ability to produce light in their otherwise totally dark environment.

The relation of sharks to man stems from commercial utilization of sharks and shark products by man and from damage caused man by sharks.

Until 1950, a commercial fishery for sharks was carried on in the United States, on both coasts, and the annual catch reached a maximum of 4.5 million pounds landed on the Atlantic coast and 39 million pounds on the Pacific coast. The fishery was carried out chiefly to obtain the shark-liver oil which is rich in vitamin A. By-products of the oil industry included: hides, used for high-quality leather products; fins (of some species), sold as specialty food items; meat, salted or sold fresh as food for human consumption in some areas; carcasses, ground into meal; and teeth and vertebrae, cleaned and sold to curio shops. With the advent of cheaper sources of vitamin A, shortly prior to 1950, most of the commercial shark fishing operation in this country were suspended.

In 1958 the American Institute of Biological Sciences (AIBS) inaugurated a Shark Research Panel for the purpose of studying all aspects of the biology of elasmobranch fishes. One of the functions is to compile a shark-attack file. Records accumulated through this effort show that, in 1959, there were 39 shark attacks on man involving at least 18 fatalities.

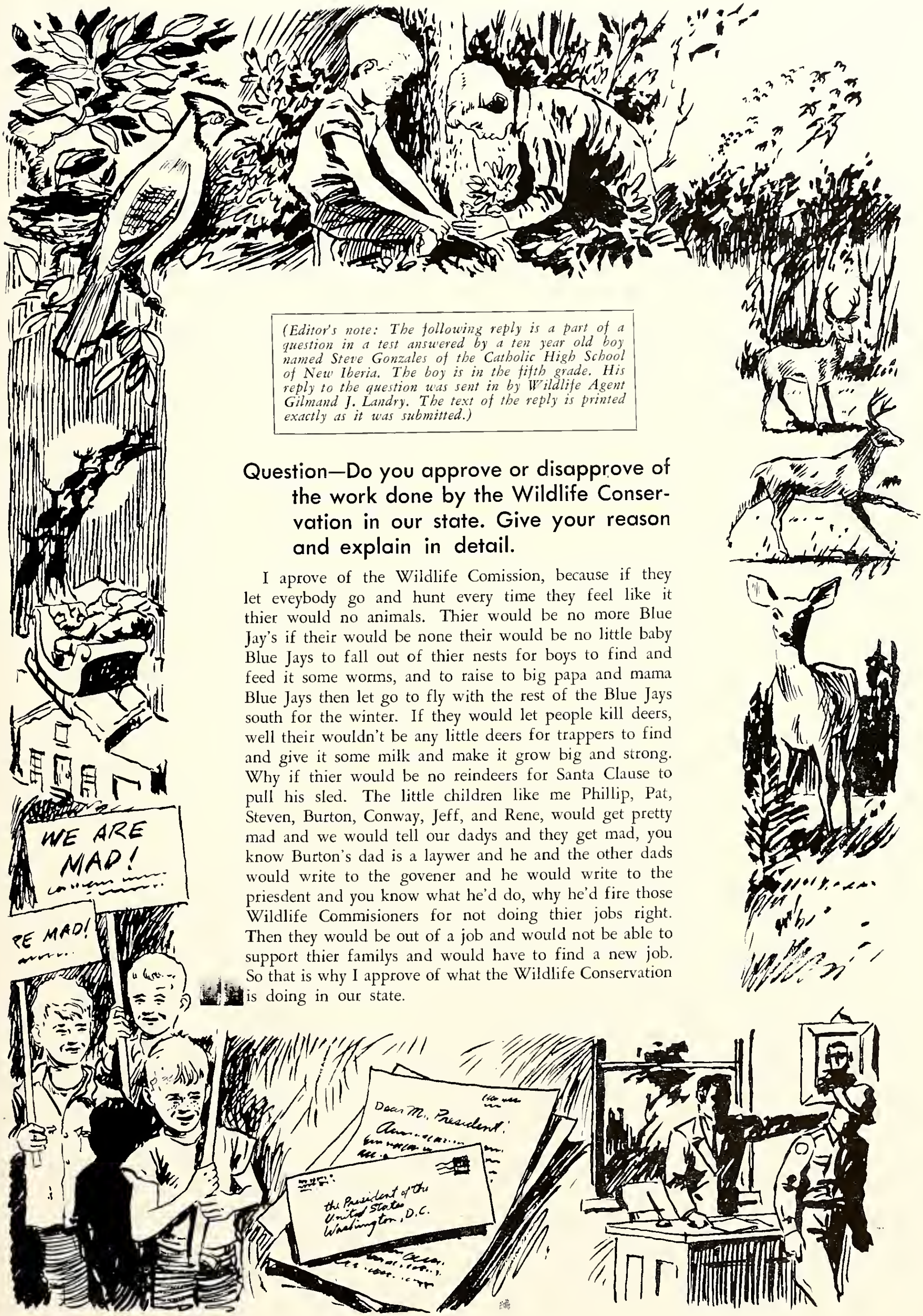
In an article entitled "Shark's Teeth", by David Kenyon Webster in Skin Diver magazine of February, 1962 Webster has this to say about attacks on man and the tremendous cutting power and efficiency of shark's teeth.

"On May 19, 1960, Suzanne Theriot, 16, was attacked by a shark while swimming inside the breaker line 100 feet from the beach six miles southeast of Santa Cruz, California. The shark bit her left leg badly, but Suzanne reported later that all she felt was 'sort of a bite. It wasn't painful, it happened so quickly,' she said.

Suzanne's sensation at the time of the attack was similar to that of many other victims of shark bite. They often report 'no particular pain' or simply 'a tingling sensation', even when losing a limb.

This lack of pain in severe injury is due mostly to the remarkable cutting power and clean efficiency of sharks' teeth. They are the most efficient teeth in the world and among the most interesting. They also differ markedly from other fish teeth.

(To Be Continued)


WE ARE MAD!
RE MAD!
Dear Mr. President
the President of the United States Washington, D.C.

(Editor's note: The following reply is a part of a question in a test answered by a ten year old boy named Steve Gonzales of the Catholic High School of New Iberia. The boy is in the fifth grade. His reply to the question was sent in by Wildlife Agent Gilmand J. Landry. The text of the reply is printed exactly as it was submitted.)

Question—Do you approve or disapprove of the work done by the Wildlife Conservation in our state. Give your reason and explain in detail.

I aprove of the Wildlife Comission, because if they let eveybody go and hunt every time they feel like it thier would no animals. Thier would be no more Blue Jay's if their would be none their would be no little baby Blue Jays to fall out of thier nests for boys to find and feed it some worms, and to raise to big papa and mama Blue Jays then let go to fly with the rest of the Blue Jays south for the winter. If they would let people kill deers, well their wouldn't be any little deers for trappers to find and give it some milk and make it grow big and strong. Why if thier would be no reindeers for Santa Clause to pull his sled. The little children like me Phillip, Pat, Steven, Burton, Conway, Jeff, and Rene, would get pretty mad and we would tell our dadys and they get mad, you know Burton's dad is a laywer and he and the other dads would write to the govener and he would write to the priesdent and you know what he'd do, why he'd fire those Wildlife Commisioners for not doing thier jobs right. Then they would be out of a job and would not be able to support thier familys and would have to find a new job. So that is why I approve of what the Wildlife Conservation is doing in our state.

Profiles IN CONSERVATION

> *"Conservation is a state of harmony between man and the land."*
> —*Aldo Leopold*

(Editor's Note: We are pleased to publish the second in a series of profiles of members of the Louisiana Wild Life and Fisheries Commission and other personalities throughout Louisiana who have demonstrated by their unceasing activities a deep-rooted interest in conservation and the wise management of our fish and wildlife resources. During the months to come, readers will become better acquainted with the men who are devoting much of their time and energy to perpetuation of wildlife resources with the only reward being satisfaction in the knowledge they have contributed toward rewarding outdoor recreation for generations to come. Second in the series is a profile of Ray A. Whatley, Vice-Chairman of the Louisiana Wild Life and Fisheries Commission.)

THE LASTING IMPRESSION Ray Whatley leaves with folks who know him is that he's young, aggressive, and wants to get where he's going in a hurry. You can tell that by the way he pushes his foot down on an accelerator, bounds from a bunk at a hunting camp long before dawn, and rips red tape to expedite better hunting and fishing in Louisiana; as well as increased commercial fisheries production and a higher standard of living for the people of Louisiana who are dependent upon the state's wildlife resources.

The people living in Alexandria where Whatley was born and still resides recall that as a boy he demonstrated that forceful drive to do things. Paradoxically, he was known for his patience and skill in hunting and fishing. As a youth, he roamed the woods, fields and streams of central Louisiana; learning first hand the keen enjoyment that comes to one who hunts and fishes.

In recent years, his hunting and fishing trips have taken him all over the United States and Canada. To the basic knowledge of outdoor life he gathered as a youth, he later added the knowledge garnered from biologists and game management experts.

Today, his personal drive and deep rooted interest in wise utilization of natural resources makes him well known in conservation circles and to sportsmen throughout Louisiana. He is quick to champion what is good in conservation practices and equally quick to denounce what he feels is harmful to wildlife.

Ray Whatley is proud that he was born and raised in Alexandria. He often refers to that general area as the heartland of Louisiana and is never at a loss to describe the diversified terrain. When he speaks of it, one can visualize the dark, rich green of the cutover pine lands and the shady undergrowth of the hardwood forests. Through his eyes, folks can see the forests and the fields, and the dense clumps of cover so necessary for wildlife.

RAY WHATLEY

"It's the land of plenty," Whatley says, and there are many people who agree with him. He likes to refer to Alexandria as the pivot point of a giant compass. Segments of the Kisatchie National Forest are North and South, East and West, of the community where he had lived except when he attended Louisiana State University.

"I feel my interest in hunting and fishing had an early start because I could go in any direction and find lands, fields and forests in which to roam and hunt," he admits with a smile. "I guess I was very fortunate in that fact."

In addition to the vast areas where there was an abundance of resident game, there was also Catahoula Lake which he considers one of the most important waterfowl areas in Louisiana.

One of his deep interests is fishing. This began for him as it did for most people.

"There were plenty of streams, rivers, and their tributaries where Whatley could fish.

"I started fishing for bream and bass early in life," he says. "As I grew older, I found that those points on the compass extended far from home. I am vitally interested in big game fishing, but you might call this a form of graduation. I like big, tackle-busting fish; but you'll never see me belittle bream, bass and catfish. I've taken part in too many fish fries to forget how good a catfish can taste."

Whatley is a member of the board of directors of the Big Game Fishing Club of New Orleans. Aside from his own desire to catch big game fish such as white marlin, blue marlin, bull dolphin, sailfish and tuna; he is giving wholehearted support to efforts of the internationally known big game fishing club to focus attention on the vast new frontier of big game fishing that has been opened up in the Gulf of Mexico.

"Sure, I want to catch some of those big ones," he will tell you, "but I am more interested in letting the big game fishermen of the world know what Louisiana has to offer. It is one of the world's greatest concentrations of big game fish. That is the story which the club has to tell."

It is when Whatley looks to the future that his role in present day conservation is revealed.

"There is now, and always will be, a definite need for conservation education among both young and older people alike," he says with conviction.

"It is not the fear of leveling of forests that concerns me, nor careless destruction of habitat. Instead, I fear most greatly the 'do good' projects that can in time change the face, and eventually the ecology of the State of Louisiana. This feeling applies to all of the land everywhere.

"I have a deep-rooted feeling that is shared by many people in Louisiana. When man changes the plan of land use and upsets the balance of Nature, people in the rural areas as well as in the large towns and cities seek an immediate 'do something'. No organization can pull that complex 'rabbit' out of a hat. The time to do something is now."

That is the motivating force behind Ray Whatley. That is the quality that pushes him to get things done when he feels they are vital to wildlife and natural resources. ✢

TEACHERS' CLINIC

Forty-five teachers from Louisiana will be chosen to attend the state's first annual resource education clinic.

The clinic will be conducted at Northwestern State College during the summer session under the supervision of Dr. George Ware of the college's biology department.

One phase of study in the clinic will cover the wise use of wildlife resources and the importance of wildlife management.

BIG LEAGUE FISHING

Plans for Louisiana's "Big Three" fishing contests have been announced by the officers general chairmen in charge of arrangements for the fishing contests.

Leander Perez, Jr., president of the Grand Isle Tarpon Rodeo Association for 1962, along with Urban C. Wilkinson, general chairman, have announced the dates for the island rodeo to be July 18, 19, and 20.

The officials of the Grand Island Tarpon Rodeo have announced a change from past years. Only trophies will be given for eligible fish winning first, second and third places in both the rod and reel division and in the skin diving division.

Sidney Becnel, president of the Empire-Southwest Pass Fishing Rodeo has announced that the dates for the contest will be August 23, 24 and 25. Main headquarters will be at Empire, but there will be an auxiliary weighing station located at South Pass.

General Ray Hufft, general chairman of the New Orleans Big Game Fishing Club Tournament, has announced that the big game fish tournament, with headquarters at South Pass, would be held June 30-July 1, 2 and 3. The four-day tournament is expected to focus international attention on the number of blue marlin, white marlin, sailfish, tuna, and bull dolphin found in the Gulf of Mexico waters within a relatively short distance of South Pass.

HUNTERS ON INCREASE

LOUISIANIANS purchased more than 300,000 hunting licenses during the 1960-61 season according to the Louisiana Wild Life and Fisheries Commission, custodian of the state's fabulous wildlife resources.

H. Roger Hunter, the commission's Supervisor of Revenue, said that 257,438 of resident basic hunting licenses were purchased at two dollars each; 56,462 big game deer and turkey licenses at two dollars each; 2,659 non-resident trip licenses and 528 non-resident season licenses were sold.

"The parish sheriffs and their staffs handled the hunting license sales in a very efficient manner last season, and the commission expresses its appreciation," Hunter added.

This is the second season the big game license has been in effect in Louisiana. Complete license sales results for the 1961-62 hunting season will be announced later in the year. ✠

Highlights of Louisiana Wildlife F

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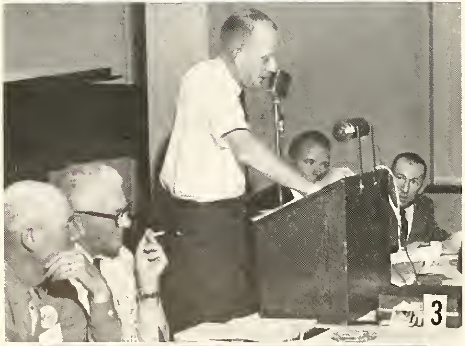
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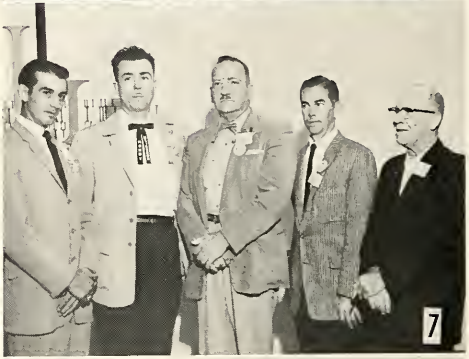
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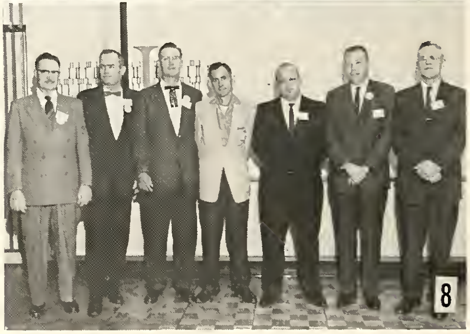
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1. *Past Federation President, Harry Gates of Lake Charles gets registration receipt from Sam Frisby, President of Rapides Parish Unit.*
2. *Welcome to Federation delegates was made by Alexandria Mayor W. George Bowden.*
3. *Shown at the mike during the waterfowl section meeting is past president Jim Ledbetter of New Iberia.*
4. *Richard Yancey, Assistant Director of the Louisiana Wild Life and Fisheries Commission, airs his views during waterfowl section meeting. Seated at left is Walter Gresh, U. S. Fish and Wildlife Service representative from Atlanta; and at right is Morton Smith, Waterfowl Study Leader for the Louisiana Wild Life and Fisheries Commission.*
5. *H. J. LeBlanc of Port Arthur, Texas, area Vice-President for the National Wildlife Federation, speaks at closing session of Convention.*
6. *R. W. Johnson of Lafayette and President Bill Knippers of Welsh admire one of Federation trophies.*
7. *New Federation officers, left to right, are: Jules Fontenot, Lottie, President; Chester Smith, Shreveport, 1st Vice-President; T. Roger, Norco, 2nd Vice-President; Lloyd Voohries, Monroe, Secretary; and Ralph Kling, Ganzales, Treasurer. Charley Bosch of Baton Rouge, not shown in picture, was re-elected Executive Director.*
8. *New district Vice Presidents of the Federation, include, left to right: Clyde D. Smith, New Orleans; R. W. Johnson, Lafayette; Malcolm Krentel, Shreveport; Hallis Erwin, Tallulah; Jim Faulkner, Baton Rouge; R. L. "Pete" Toomer, Lake Charles; and Sam Frisby, Alexandria. Not shown is vice-president of District II, Francis Braud, Jr. of Narco.*

deration Convention in Alexandria

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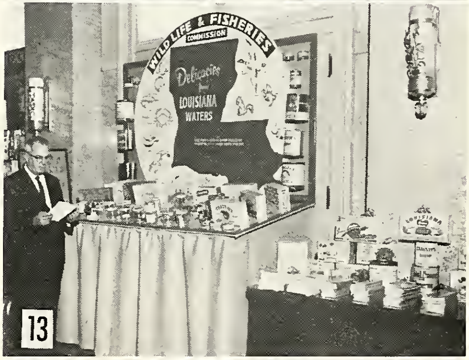
WILD LIFE & FISHERIES COMMISSION
Delicacies from LOUISIANA WATERS
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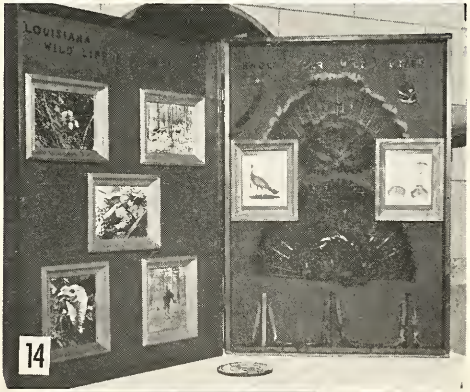

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(Photos by Jack Britt)

9. John Newsom, Chief of the Commission's Fish and Game Division, tells convention delegates of Louisiana's deer herds and problems.

10. Treasurer Ralph Kling holds nutria coat as Fur Festival Queen Patsy O'Neil of Abbeville models Louisiana nutria stole. Miss O'Neil made a special trip to the convention to help promote garments made of Louisiana fur.

11. A. B. "Bud" Jackson of Springfield, Missouri as he delivers speech during Federation's annual banquet.

12. New Secretary, Lloyd Voohries of Monroe and new President Jules Fontenot of Lottie look at one of the handsome awards.

13. District education specialist, Sam Murray of Lafayette briefs one of Information and Education Division's brochures. Sam is standing near one of the Commission's exhibits erected especially for the Federation Convention.

14. Another display was the one above on the wild turkey in Louisiana. The exhibits were well received by convention delegates and other hotel guests.

15. Roy Schaefer, Commission Accounting Chief, attempts to explain the financial structure of the wildlife agency.

Progress Report:

Aquatic Vegetation Control

PART TWO

Research Aspects And Future Outlook

W. S. Hardcastle

THE WATER HYACINTH is whipped—a result of the combined efforts of research technicians in industry and several governmental agencies—there remains only the problem of providing the field operational crews with the where-with-all (spelled m-o-n-e-y) to deliver the chemical mixture to the plants. The degree of control obtained will reflect directly the desires of those sportsmen and industrial interests using the waters of the state.

There will be, from time to time in the future, slight modifications in the existing program for hyacinth control to adapt equipment to changing conditions and to incorporate new developments in chemicals, but these are minor considerations when compared to the problems which remain to be solved before the myriad "mosses" are brought to the same stage of control.

As indicated earlier, changes in the pattern of land and water use and, particularly the stabilization of water, have established conditions which are favorable for the production of weed infested water.

Upon examination, the weeds which are generally lumped together and called mosses if under water, or lilies if above water, are found to be as varied as the trees in the forest. Just as one finds not only pines and only pines and oaks and elms, but loblolly, slash, and long-leaf pine, red, white, and post oak, and American, winged and slippery elm, so does one find a variety of different water plants. These plants vary as much in their growth requirements and habits as do land plants. As cypress likes to have its toes in water while pine prefers the dryer hillside, so does the pondweed grow attached to the water bottoms while duckweed is happy to float on the surface with its roots free of the soil.

Some of the aquatics live out their entire lives under water and will not tolerate exposure to the air; others, while the majority of the plant remains underwater, send up blooming stalks to produce seed above the water surface. These different growth habits materially influence the types of control methods which will be effective against the various individual species.

When considered by growth habit, aquatics fall generally into four categories: 1) Submersed—those plants which complete the majority of their cycles completely under water with, at most, only flowering and fruiting structures appearing above water; they may or may not be rooted. Such plants as coontail, waterweed, southern naiad, bladderwort, stonewort, and fanwort are typical of this group. 2) Emergent—plants which commonly produce sections which persist at or above the water surface although they may be rooted to the bottom. Included here are the water lilies, milfoils, pondweeds, and arrowheads including duck potato. 3) Floating aquatics—those in which the majority of the plant body is found at or above the water surface with the roots suspended in the water. Included in this group are water hyacinth, duckweeds, water lettuce, and water fern. 4) Marginal or semi-aquatic weeds—these plants grow along the margins of lakes and streams, often extending for several feet both into the water and up the wetter banks, and in low marshy areas. Typical of this group are alligator weed, cattail, the rushes and sedges, and southern wild rice.

As there are several general groupings of plants, there are several approaches to control of these plants where they have become a problem. One of the first considerations is that there is seldom a problem which is caused by a single species or even a single category of plants, most often, there is a hodgepodge by the time the problem is evident. The creation of conditions such as clear stable water is, as noted previously, one of the major factors contributing to submersed weed problems. One of the obvious approaches to the control of weeds is the removal of these favorable conditions to place the weed species in an unfavorable competitive position. Under certain conditions this is possible; *however, these practices are limited, both in locale and degree of control obtained.*

Since we are dealing with aquatic plants, exposure to the air and the dessication, or drying, which follows, kills the above ground parts when the water is drawn off. In addition to the weed control obtained by this operation, there are other gains. The species composition of fish in the lake is generally improved since the forage fish are made available to the predacious species when they are driven from cover by the receding water. Fishing quality generally improves concurrently with the draw-down. Fresh water is introduced in filling which is often an advantage, and an increase in fertility is obtained both by the release

A typical Louisiana stream choked with a matted mass of water hyacinths, alligator grass and other aquatic weeds and plants before treatment. Navigation is impossible, fishing is virtually impossible, and a potentially valuable fresh water stream is made worthless as the carpet of green death spreads over the water.

of bound nutrients from the soil on the lake bottom and from the decay of the organic matter killed in the draw-down. The optimum time for this operation as far as weed control is concerned, is in the spring or early summer before the weeds have a chance to set seed. In practice, however, this is seldom feasible because this period generally overlaps the spawning period of the fish. A summer draw-down is, therefore, generally recommended.

It must be stressed that manipulation, although generally economical, has several drawbacks. One of the major of these is the fact that the benefits are limited to an extension of availability of fishing waters during the productive spring fishing period—by fluctuation it is expected that the lake could be used effectively for a period of from six weeks to two months longer during this period before the weeds essentially close it out. Coupled with this gain is the loss of the lake or portions thereof for the draw-down period.

Not all lakes are adaptable to water manipulation as a management tool. There are several factors which influence the success of manipulation for weed control. Among these is the configuration of the lake bottom. Ideally the shoreline should be sharp, dropping rapidly to a depth of at least three feet with a large portion of the lake of nearly enough the same depth that it could reasonably be exposed. There should be enough deep water, preferably all in the same area of the lake, to form a holding basin with enough water to maintain the fish population during the draw-down period. And finally, consideration must be given to the source of water to refill the lake at the desired time.

Since each lake is an individual and has its individual problems and characteristics, specific recommendations for a program of manipulation are generally made only after detailed investigation by a technician. Several of the major lakes in Louisiana are now following a fluctuation program and results here and in other southeastern states have shown that this is a valuable management tool where it can be utilized.

While manipulation is generally considered to be a tool for use in the management of larger bodies of water, it can be used to a limited extent in the management of farm ponds and small lakes. There are other, more useful techniques available for these smaller waters; among these are pond design and fertilization. There is at present a bulletin being prepared which will treat these smaller waters and their management in detail. Pond design generally concerns the prevention of weed infestations by denying them shallow water in which to become established; this coupled with an adequate fertilizer program will nip the problem in the bud and prevent submersed weeds from becoming established in troublesome concentrations.

Fertilizer, properly timed and applied in the proper amounts, put the weeds at a competitive disadvantage by favoring the development of microscopic plankton algae which intercept the light energy which the weeds require for growth. In addition to its effectiveness for weed abatement, a fertilizer program enhances fish growth and production by materially increasing the food available for fish development.

While both water manipulation and fertilizer programs have several applications, they do not, by any means, satisfy the need for control of the many varied weeds under the wide variety of conditions encountered in the waters of Louisiana.

The alternative to meet the need of the water using public for clean water, uncluttered by weeds, is the development of other methods of weed control. The most promising of several approaches available is the use of chemicals which are active in killing plants. These herbicides have found wide use in agriculture and in the maintenance of the rights-of-way and rangelands.

In the development of a chemical weed control program there are several aspects which must be investigated. First among these is the selection of chemicals which will kill plants. The bulk of the work of this nature is done either by the federal government at its research stations or by private industry in their laboratories and research farms. After a material has been shown to have phytotoxic properties, there then remains the necessity of determining its effect on the particular weeds which are problems in the lakes and streams of the state. Closely allied with these determinations is the determination of the specific amounts of chemicals required to obtain the degree of control desired for specific waters.

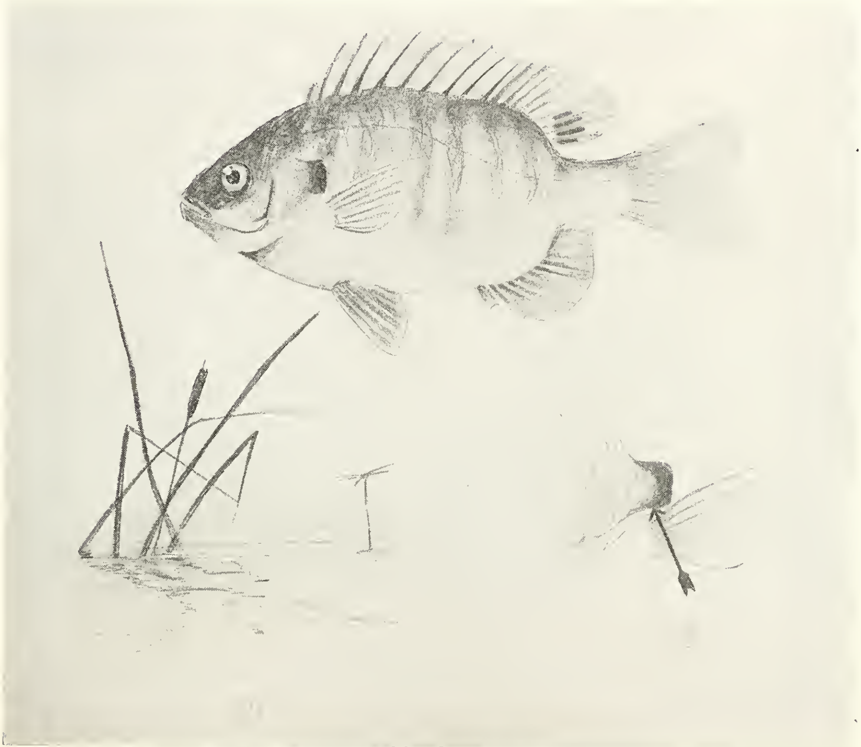
After the required dosage has been established it is necessary to determine the safest and most effective method of application for field control. For emergent species, a spray application is often most effective. This is also true for marginal weeds if they will respond. Submergent species are protected from sprays by the covering water and some of them must be attacked by full water treatments with chemicals to build a lethal concentration of herbicide in the entire lake or at least in large portions thereof. Where this is necessary the cost is generally prohibitive, even if other factors are favorable. Where rooted submergents are the problem, an alternative application method, the use of granular materials, shows promise. Here the herbicide is impregnated on a pallet of clay or other like material and is carried to the water bottom where it is released to attack the weeds at or near the soil-water interface. This method is still experimental and its effectiveness has not been completely established, nor has the possible effects of this type of application on bottom feeding fish and on fish food chain organisms been established.

As indicated above, not only must the weed killing properties of a chemical be established and methods for its delivery at the action site be devised, but its effect on fish, domestic animals, agricultural crops, industrial processes, and man must be determined before widespread use can be recommended. Here, again, these determinations and restrictions are generally the results of the combined efforts of government and industry in whose laboratories and research stations are made the tests which determine the relative safety of various compounds whose use as herbicides is proposed. The Louisiana Wild Life and Fisheries Commission has recently completed a well equipped laboratory in Monroe to investigate the toxicity of herbicides and other chemicals to fish and fish food organisms to determine that no ill effects would follow the use of these chemicals for weed control and to determine the order of

(Continued on Page 21)

Hyacinths and other weeds are licked by treatment by aquatic vegetation control units. Research has won a battle but the degree of control obtained will reflect the desires of those sportsmen and industrial interests using the waters of the state.

Louisiana Wildlife



BLUEGILL SUNFISH

Lepomis macrochirus

Names: Often called, Blue Sunfish, Blue Perch, Redbreasted Sunfish, Blue Bream, Copper-nosed Bream Dollardee, Pumpkinseed.

Distribution—the most common freshwater game fish in Louisiana, virtually in all ponds, lakes, rivers in the state. Found in 5 feet to 15 feet of water where water plants are abundant and moves in small groups. Often found in association with Large-mouth Black Bass.

Identification—Reddish pink underneath, copper or bronzy green on top with dull stripes on sides deep blue gill.

The bone under the "ear flap" on the back of the gill cover extends to the margin of the flap. (See arrow)

Size: 12 inches to 14 inches weighs 1½ pounds but more often slightly under a pound.

Food: insects, smaller fishes, crustaceaus.

Spawning—5,000 to 30,000 eggs depending on size. Eggs have been found all year long but mainly between April and September. The eggs are laid in a small nest which has been fanned out in shallow water.

Scrapbook

Sidney A. Gauthreaux, Jr.

Industry Cited By Commission

The Louisiana Wild Life and Fisheries Commission has cited two corporations for making available to Louisiana hunters, fishermen and outdoorsmen more than 400,000 acres each of their lands for public recreation. E. R. McDonald, of Newellton, commission chairman, third from left, is seen following presenting the certificates of merit to Travis MacClendon, left, woodlands manager of the Olin Mathieson Chemical Corporation, and Joseph E. Pate, right, Manager of the International Paper Company's Bastrop mill. Earle Barham, Oak Ridge, Chairman of the Louisiana Wildlife Federation's FAIR program, is shown second from left. The presentation ceremonies were held at the commission's last monthly meeting in New Orleans. There will be more awards of merit bestowed on other corporations and individuals who have performed similar contributions, McDonald said at the presentation. (Photo by Britt)

L. D. Young, Jr., director of the Louisiana Wild Life and Fisheries Commission, has revealed the names of the first two recipients of certificates of recognition of outstanding "and great public service in the field of outdoor recreation and conservation of forests, fields and streams upon which the renewable supply of wildlife is so dependent."

The citations were presented to International Paper Company and Olin Mathieson Chemical Corporation. Each of these companies has approximately 400,000 acres of land on which they welcome Louisiana hunters, fishermen, and other persons seeking outdoor recreation.

J. E. Pate, Bastrop, Louisiana, mill manager for International Paper Company; and Travis MacClendon, West Monroe, Louisiana, woodlands manager for Olin Mathieson Corporation, received the certificates on behalf of their companies at the monthly meeting of the Louisiana Wild Life and Fisheries Commission Tuesday, March 27, in New Orleans.

"Presentation of the two certificates initiated a commission program of expressing public appreciation of policy by industry and private landowners of leaving private lands open to the public for hunting and fishing, boating and camping, and similar outdoor activities," Young said.

He pointed out that additional awards would be made to other companies and private interests in the near future.

"Tremendous benefits come from this open door policy on the part of both corporate and private interests," Young said, "and it is the plan of the commission to publicly commend this growing attitude of landowners, both large and small."

Earle Barham, Oak Ridge, Louisiana, chairman of the Louisiana Wildlife Federations' FAIR (Federation and Industry Recreation) program was present at the Commission meeting when the certificates were presented.

Barham outlined the FAIR program to the Commission at a meeting last year and suggested recognition of industrial and private landowners participating in this state wide program. ✢

REPORT on commission action

MEETING OF MARCH 27, 1962

AT ITS REGULAR monthly meeting held on the fourth floor of the Wild Life and Fisheries Building the commission was told in a Tensas Parish grand jury report that careless hunters are cause for concern and was asked what can be done about them. The report cited the death of a hunter recently when he was shot from a tree by another hunter.

The shooting, it was pointed out was in error, but commission members expressed the need for gun safety education.

The commission, in another action, cited two corporations for making available to Louisiana hunters, fishermen and outdoorsmen more than 800,000 acres of private property for public recreational use.

Commission chairman E. R. McDonald presented certificates of merit to Joe Pate, manager of the International Paper Company, Bastrop mill, and Travis McClendon, woodlands manager of the Olin Mathieson Chemical Corporation of West Monroe.

Assistant-Director Richard Yancey said the action on the part of those two corporations marks a new milestone in wildlife and fisheries activities in Louisiana.

"Presentation of the two certificates initiated a commission program of expressing public appreciation of policy by industry and private landowners of leaving private lands open for hunting, fishing, boating and camping, and other similar outdoor activities," Commissioner L. D. Young, Jr., said.

He pointed out that additional awards would be made to other companies and private interests in the near future.

"Tremendous benefits come from this open-door policy on the part of both corporate and private interests," Young said, "and it is the plan of the commission to publicly commend this growing attitude of landowners both large and small."

"Earle Barham," of Oak Ridge, chairman of the Louisiana Wildlife Federation's FAIR (Federation and Industry Recreation) program was present at the meeting when the certificates were presented. Barham had outlined the FAIR program to the commission at a meeting last year and suggested recognition of industrial and private landowners who were participating in the state-wide program.

In other action the commission, granted a permit to Shane Incorporated for removal of fill material from the river bottom of Chalmette, one mile below Paris road.

It held in abeyance an application for a permit to remove shells from the Cabbage Reef area in St. Bernard Parish near the Mississippi line. The commission delayed action to study the application further.

The commission granted a month's grace period for trawlers to pay license fees at the request of the Terrebonne Parish Police Jury.

In another action it expressed opposition to a provision of proposed legislation in Congress which would increase postal rates on the commission's magazine, the LOUISIANA CONSERVATIONIST, which is published in the interest of better conservation and distributed to the public free of charge.

During the meeting, chairman McDonald called for a standing minute of silence as a memorial to Captain Bill Parker, Captain Brisco Parker and Messrs. Jack Parker and Glenn Drapper. McDonald said that the four lost their lives in a recent airplane accident, were not only veteran sportsmen but also outstanding in their support of the conservation movement. ✢

CAMPING IN LOUISIANA

(Continued from Page 4)

camp stove. Used almost universally are the "Coleman" type units which use gasoline as fuel.

Small, folding charcoal grills are handy, too, as are the compact stoves which use canned heat as fuel. Many campers carry these in addition to the gasoline stove, both for variety and to use on side trips where portability is important.

Another must for your camping list is a light. Again, the "Coleman" type lantern which uses gasoline is just about standard equipment throughout the country.

Camping in Louisiana

Both interest in camping and facilities for campers have lagged in this state, but both now show signs of awakening.

As a place to park his pad, the Louisiana camper can now choose from: 1. organized public campgrounds at state parks and on the Kisatchie National Forest; 2. private commercial campgrounds, largely at fishing camps on lakes and streams; and 3. several million acres of private forest land in the state which is open to public recreation.

State parks which have campgrounds are Chemin-A-Haut, 10 miles north of Bastrop; Chicot, 8 miles north of Ville Platte; Fontainebleau, 3 miles east of Mandeville; Bistineau, 20 miles southwest of Minden; Sam Houston, off US 171 north of Lake Charles; Longfellow-Evangeline, near St. Martinsville; and Lake Bruin, 5 miles north of St. Joseph.

For details and a folder write: State Parks & Recreation Commission, P. O. Box 2541, Baton Rouge.

Developed campgrounds on the Kisatchie National Forest are at Valentine Lake, 14 miles west of Alexandria; at Gum Springs, 8 miles west of Winnfield; at Longleaf Trail Vista, on the Red Dirt Game Management Unit 9 miles south of Derry; at Fullerton Lake, 9 miles north of Pitkin off Highway 10; at Caney Lakes, 6 miles north of Minden; and at Corney Lake, 20 miles northeast of Homer.

Many campsites, like this one on Kisatchie, have garbage disposal facilities and restrooms. Where this isn't the case, get rid of your wastes by burying them.

The air mattress-sleeping bag combination is ideal for sleeping outside. Even with the trailer this youngster preferred the romance of bedding down on the ground outside, and is inflating an air pillow. The gasoline lantern in the foreground is an indispensable camping item.

For details and a folder write: Supervisor, Kisatchie National Forest, Alexandria.

From Grand Isle to the Arkansas border there are thousands of privately-owned spots where camping is permitted. These, of course, will normally have no provision for drinking water, garbage disposal, or restrooms. Campers should leave these areas as clean and undefiled as when they found them. Dig a slit-trench latrine for toilet facilities, a garbage pit for your kitchen wastes, and fill both when you break camp.

Although the danger is slight, Louisiana campers should be aware of the hazard of poisonous snakes. Mosquitoes, too, must be guarded against in some parts of the state.

Before buying your camping outfit, check thoroughly the array of equipment available. ✢

FISH AND FISHING

All kinds of trout are carnivorous, that is, they feed on the flesh of other fishes or animals.

Some kinds of fish have a strongly developed sense of smell to help them find food. If they like the smell of an object, they go after it. If not, they avoid it. Strangely enough, catfish are pleased by smells that other fish and animals find objectionable.

AQUATIC VEGETATION CONTROL

(Continued from Page 16)

injury to be expected if certain other chemicals were introduced into the waters of the state.

A final consideration for evaluating a candidate material for field use as an herbicide is cost. While a chemical application costing several hundreds of dollars per acre may be acceptable in industrial sites or in small lakes maintained primarily for their aesthetic value, their general use could seldom be recommended. Since, at the present time, an expenditure of more than $15-20 per acre for the entire weed control operation is considered to be excessive, the market price of a candidate chemical is often a factor limiting its use in large scale operations.

In the past few years research by industry and governmental agencies directed toward aquatic weed control has increased considerably. Several research stations have been activated in the southeastern United States. Some of the results from this effort will be directly applicable to the weed problems found in Louisiana. Much of the work, since it is not directed toward the same weeds or since it was done under dissimilar conditions, will be of little value except as a general guide for further work directed at Louisiana weeds and growing conditions. Again, as in the case of water hyacinth control, the degree of control of submersed and emergent aquatics obtained in the waters of Louisiana will reflect directly the desires of those sportsmen and industrial interests using these waters.

Listed below are general and specific recommendations for control of aquatic weeds in Louisiana. Some are made as the direct results of research by technicians of the Louisiana Wild Life and Fisheries Commission and others are adapted from information from other sources.

WEED CONTROL RECOMMENDATIONS

GENERAL WEED CONTROL: *Lakes*: In construction, plan for tree free areas as far as possible.

Where weed problems are widespread, consideration should be given to a fluctuation program.

For limited areas along banks and for clearing boat roads, see recommendations for specific weeds and use chemicals accordingly at appropriate rates for surface area or volume involved.

Streams: Weed control not generally feasible in flowing streams with present methods.

For bank areas see recommendations for specific weeds.

Ponds: In construction slope banks sharply and assure sufficient water depth.

In established ponds rework banks as in construction if possible.

Follow fertilizer program.

For surface aquatics, see specific recommendations.

SPECIFIC WEEDS: Not all treatments listed below are completely proven; however they have shown considerable promise, and are, generally, the only materials or methods available at present. Their status is indicated by (R)=recommended and (S)=not recommended, but suggested for trial on limited areas for evaluation. One or more retreatments to control late sprouting plants may be necessary with any of these applications.

OTHER CHEMICALS: Certain other chemicals which have been used or recommended for use in other areas have not been included in the above list. These materials include the arsenicals, copper sulphate and certain chlorinated hydrocarbons whose nature is such that they should be used only after consulting technicians familiar with their application.

CAUTION: BEFORE ANY CHEMICAL APPLICATION IS MADE FOR WEED CONTROL, THE CONTAINER LABEL SHOULD BE VERY CAREFULLY READ AND PRECAUTIONS SHOULD BE NOTED.

AGENCIES TO CONTACT FOR FURTHER INFORMATION:

Louisiana Wild Life and Fisheries Commission
Fish and Game Division
Local Soil Conservation Service office
County Agent
Extension Weed Control Specialist
Agricultural Extension Service
Louisiana State University
Baton Rouge ✠

PUBLIC HEARING ON HUNTING SEASONS

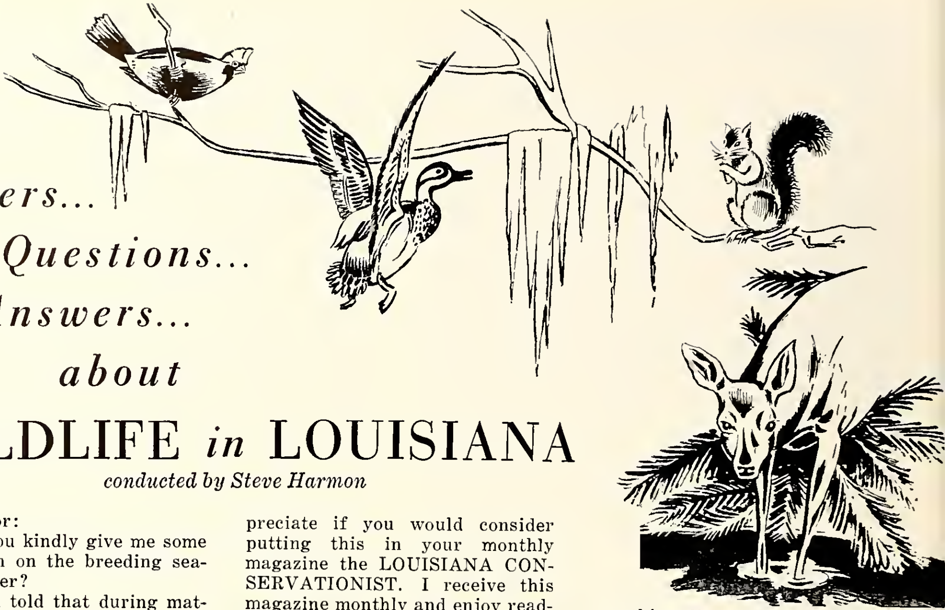
A two-day conference to discuss the 1962-63 hunting seasons will be held in Alexandria on June 15 and 16, according to an announcement by L. D. Young, Jr., director of the Louisiana Wild Life and Fisheries Commission.

Young stressed the fact that the two days designated by the Commission were selected to include a Saturday. The two-day conference will be held in Alexandria's Holiday Inn Motel and will be open to the public from 9 a.m. to noon and from 1:30 p.m. until 5:30 p.m. on each of the two days.

All members of the Commission, the director, and several division chiefs, will take part in the discussions which have been beneficial to the Commission in the past several years in setting seasons that satisfy the majority of hunters.

Young stressed that a Saturday had been included in view of the fact that many people might not be able to get away from their jobs on week days; but would like to be heard during the public meeting.

Special invitations are being mailed to members of the Louisiana Legislature, and officials of the Louisiana Wildlife Federation units and local officials.



Letters... Questions... Answers... about WILDLIFE *in* LOUISIANA

conducted by Steve Harmon

Dear Editor:

Would you kindly give me some information on the breeding seasons of deer?

I've been told that during mating season the buck is the one that comes in season, have I been mislead on this article?

I have a doe as a pet. I would like to breed her, would you tell me the best time, and if she will mate with a wild buck. Will look for answer in CONSERVATIONIST.

LLOYD OSTENDORF

Insofar as the breeding seasons for deer are concerned they are somewhat similar to sheep or goats. In this respect the doe deer begins the oestral cycle normally in Louisiana sometime in November. If during the first cycle she becomes bred then of course the oestral cycle will not be repeated. However there is every indication that the oestral cycle will continue at intervals of approximately 28 or 29 days until such time as she may be successfully bred. Most authorities agree that the general physical appearance of buck deer which indicates that he is in the rutting season such as the swollen neck is a result of various activities associated with the rutting season, such as polishing the antlers and fighting with other buck deer. At the end of the rutting season when all of the does in a particular herd have either been bred or are no longer going through the regular oestral cycle, the bucks normally shed their antlers, lose the appearance of the swollen neck and assume the normal physical appearance.

Insofar as the doe which you have in captivity is concerned, she will mate with a wild buck and the best time would be late November or December.

JOHN D. NEWSOM

Dear Editor: Sulphur

Enclosed is a picture taken of a fine rabbit hunt made in the last days of the season. I would appreciate if you would consider putting this in your monthly magazine the LOUISIANA CONSERVATIONIST. I receive this magazine monthly and enjoy reading it down to the very last page.

Hunters in the picture are from left to right, Ed Grabowski of Lake Charles, Robert Ray of Vinton, Jeffery Le Jeune of Maplewood and Tommy LaBorde of Sulphur. Another hunter and very fine sportsman himself, taking picture with camera is Herschel Pierce of Lake Charles. A six dog beagle pack was used on this hunt, owned by Grabowski and Ray.

Hoping to see this in your next issue and thanking you for your time and cooperation, I am,

TOMMY LaBORDE

P. S. Pierce was also member of party. 18 rabbits were killed in Swamp south of Sulphur.

Dear Editor: Hammond

I am writing this for one main reason. Can you give me, and I'm sure other sportsmen, a legitimate excuse for the way the deer seasons were set in Iberville Parish? The split-season covered a larger area than just my parish. Why was this split-season set? I can see no valid reason for this. It added trouble to caring for the dogs, since our camp closed for the split. I'm sure there are other deer hunters who feel the same as I do about this split-season.

I realize that I am just one hunter among thousands, but I am writing with the hopeful idea that others are doing it also. Speaking for myself, and other hunters that I have spoken to on this matter, I only hope that the season won't be messed up again. It would be much better if it would be opened later, also.

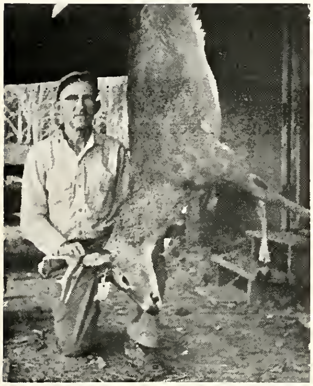
Thank you very much for enlightening me on this matter. Also thank you for sending me the LOUISIANA CONSERVATIONIST. I had hoped, and still do, that there will be an explanation published in your magazine.

THOMAS D. JOFFRION

The Louisiana Wild Life and Fisheries Commission held a three-day public hearing in Alexandria, June 1961, to which all interested sportsmen were invited to attend. The purpose of the hearing was to obtain the views of interested persons on the various hunting seasons for 1961. It was the unanimous request of all persons present at this hearing that the deer season in Louisiana be split for the 1961 hunting season. Biologically speaking, we can propose no valid reasons for or against a split season, although, we do have an idea that a split season provides for a greater harvest of deer.

Insofar as a later deer season is concerned, we are presently limited to January 10 as the latest possible date that the deer season can run. The *season in south Louisiana generally ended on January 8, 1962.*

I would suggest that if you have ideas concerning the deer season for 1962-1963 that you avail yourself of the opportunity of being heard at the public hearing in Alexandria which will be held on June 15-16, 1962.



Dear Editor: Prairieville

Enclosed please find a photo of Mr. Leonard Decoteau of Rt. 1, Gonzales, La., and the eight point buck he killed during December, 1961. The white tail weighed 180 pounds live weight. The deer was killed in St. James Parish. You may use the photo in the LOUISIANA CONSERVATIONIST if you desire. There is no need to return the photo as we have other prints. Mr. Decoteau has given permission to have his picture submitted to you for the CONSERVATIONIST.

HARRY J. BRAUD, JR.

Dear Editor: Basile

I'm writing this letter to let you know I get the CONSERVATIONIST and enjoy it very much. My son who is only 8 years old enjoys it very much too. I would like to know why it is here in this part of Louisiana we don't get help from the Commission in our district. I know they do their best to satisfy everybody but we sure need help over here in our part of Louisiana. We think over here our forest would be good enough to be stocked with deers, and I think you would get help from the land owners. As far as for ducks over here, we don't have very many of them because of the refuges, but it's not too bad if you have a good pond year in and year out. We would like to see the Wild Life Commission stock us with a few quails too. As you know we were hit pretty good by "Audrey" in 1957 and I think our forest now would give perfect protection to deer. I would like to see them stock our forest with a few wild turkeys also.

You may think I'm a sore loser but I think the Wild Life and Fisheries Commission are doing a wonderful job, and hope they keep it up so my son which is only 8 years old will be able to hunt with me one of these days.

I thank you very much for your trouble and tell everybody to keep up the good work. I sure hope you can give us a little help.

RICHARD F. HEBERT

Dear Editor: Ferriday

Speaking of good fishing! You can't beat Concordia Lake at Ferriday. Here is a picture of Jess B. Barnett, a resident of Ferriday. I was fishing with him when Mr. Barnett caught this one, but the ones I caught were much smaller. The bass weighed an even seven pounds.

W. S. BOWDEN, JR.

We have known for a long time that Louisiana bass run big. Below is another picture of a bass caught on March 17. It weighed eight pounds-one ounce and was caught by Russell Etheridge, Winnsboro, on a pond owned by his father, J. B. Etheridge, Sr.

Dear Editor: Jena

"A man spends much time training his 'best friend' —his dog. He spends money feeding it, giving it shots and caring for it. He spends time training it and getting it ready for hunting. I have several friends who have spent this time and money on a dog, only to have it stolen."

Just what manner of man is a thief? To begin with, he is a liar and a coward. Opinions as to what breed of lowdown scum it takes to make the most contemptible thief vary.

What do thieves steal? Some steal your good name and damage your reputation as a citizen; others steal your confidence and leave you sad and disappointed; and some stoop so low as to straddle off an obligation on you which you "stood" for as their good friend. But which is really the most universally despised thief? Not the cattle thief, for he might need money to feed his hungry children; not the horse thief, for he might need old Dobin to make a crop; not even the dirty thug who stole Little Orphan Annie's piggy bank, for she at least had poor relations to take care of her. It is the dog thief.

JESS V. MOFFETT, SR.

Dear Editor: Baton Rouge

A group of us here at Ethyl who fish constantly discuss worms in the skin and cavities of fish, particularly bass. Some throw the fish away, others merely remove the worm area, while many never notice the worm and eat the fish.

We would appreciate an article in the Conservation or a reply shedding some light on the subject. What causes the worm-low water, muddy water, seasonal changes, etc. We have noticed worms in fish in running clear water, as well as water in swamp area, such as the Bayou Pigeon Area, Old River at Morganza, False River at New Roads. We enjoy the magazine and will appreciate your efforts in this matter.

CARLO H. POLITO

There are several species of "worms" which infest bass. Some of the species, the tapeworms, are always in the fish and some are seasonal. The "worms" that occur in the muscle are the larvae stage of the parasite and are more abundant during warm weather.

These worms are internal fish parasites and the harm done to the fish is proportional to the number of parasites that infest the fish. A heavily infested fish would soon die. Other effects are sterility, stunting, emaciation and debility, and loss of weight. Two parasites that are common in the bass are the black grub and the bass tapeworm.

Fish containing parasitic worms are anything but esthetic and desirable as articles of food. However, the fish would not be harmful for human consumption as the fish parasites occurring in Louisiana are not capable of becoming established in man.

HARRY E. SCHAFER, JR.
Supervisor, Fisheries Section

Women Outdoors

Gail Martens

THERE'S NO DOUBT ABOUT IT!

The best seafood cuisine in the world is found right here in Louisiana.

The culinary imagination of Creole cooks was stimulated by the abundance and quality of Louisiana seafood many years ago. The recipes they created have been cherished and used by every generation since.

The recipes we have given here are basically the same ones that have been used for hundreds of years are just as much a part of legacy in Louisiana as the Mississippi River.

TURTLE SOUP

1½ pounds turtle meat
1 Tb. flour
1 Tb. Shortening
2 onions
¾ cup tomato sauce
3 hard cooked eggs
3 Tb. olive oil
Stock (water in which turtle was boiled)
1 tsp. ground cloves
1 tsp. cinnamon
1 tsp. mace
1 tsp. nutmeg
2 tb. syrup
1 sliced lemon
3 cloves garlic
1 glass wine

Clean turtle and cut into small pieces. Boil in salted water until tender. Remove bones and chop meat finely.

Make a roux of flour and shortening. Add chopped onions and tomato sauce.

Mash yolks of eggs in bowl and add olive oil and spices. Stir until smooth. Add to tomato gravy.

Pour this mixture into large pot containing meat and stock. Brown syrup and add to this mixture.

Simmer for 45 minutes.

Add lemon and garlic. Simmer for additional 15 minutes.

Season to taste. Add wine and sliced whites of eggs.

Serves eight people.

CRAWFISH BISQUE

6 dozen crawfish

Wash crawfish thoroughly. Boil in plain water for 30 minutes. Cool. Separate heads from tails; peel and devein tails. Save two dozen heads and wash very carefully. Eyes and feelers may be removed if desired.

Bisque:

1 Tb. shortening
2 medium onions, chopped
3 shallots, chopped
1 Tb. butter
2 Tb. flour
1 small can tomatoes
1 can tomato paste
½ Tsp. sugar
Salt and Pepper
1 clove garlic
1 bay leaf
1 Tb. chopped celery
1 Tb. minced parsley
1 Tsp. thyme
Half of crawfish meat

Brown the onions and shallots in large heavy pot. Add butter and flour and make a roux. Add tomatoes and tomato paste. Simmer for 10 minutes. Add crawfish and spices. Stir well and add two quarts of water. Simmer 45 minutes.

Stuffing for heads:

1 onion, chopped fine
1 Tb. butter
1 cup bread (stale)
2 Tb. parsley, chopped
1 tsp. thyme
remainder of crawfish meat

Brown onions in butter; moisten one cup of bread and add to reserved crawfish meat. Season with salt, pepper, thyme, and parsley. Stuff heads. Place stuffed heads in bisque and simmer for 30 minutes.

Serve over rice.

SHRIMP CREOLE STEW

1 Tb. butter
2 cans tomatoes
2 small onions, chopped
1 bay leaf
3 stalks celery, chopped
1 tsp. thyme
2 cloves minced garlic seasons
3 pounds shrimp

Boil shrimp in seasoned water until shells turn pink. Let cool.

Remove shells and devein.

Melt butter in heavy iron pot. Add onion. Sauté. Add tomatoes. Cook for five minutes, stirring often.

Add all other ingredients, with the exception of shrimp. Cook for ten minutes.

Add shrimp and simmer over low fire for additional fifteen minutes.

Serve over rice.

Don't let your family's outdoor adventures be spoiled by avoidable accidents or illnesses. Take every precaution to make your outings safe and healthy.

The Bird of the month

HOODED WARBLER

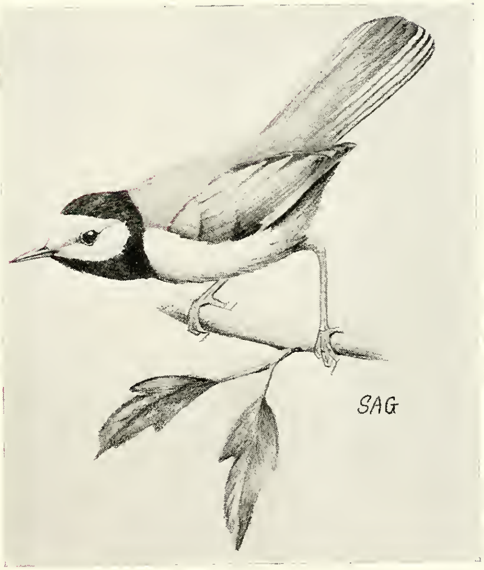
Charles R. Shaw

Wilsonis citrina

The Hooded Warbler is a member of the large family of birds known as Wood Warblers or *Parulidae*. There are about forty species of these generally colorful little creatures which occur in Louisiana at some time or other during the year. Many of these are just migrants but about fifteen kinds nest in the state. Naturally the multiplicity of these warblers with the various plumages associated with sex and age variations makes identification something of a problem. This problem however is one that intrigues ornithologists, professional or amateur and provides the bird watchers of all ages with many interesting hours afield.

Although, as we have said, there are a great many warblers in Louisiana during the summer months there is actually not much difficulty in identifying the male Hooded Warbler. It is unfortunate that our illustration is not in color but if you visualize the light areas of the face and underparts of the bird as being bright yellow and the upper parts as greenish yellow with the hood which covers the head, neck, and throat being black, then you have the picture. There is some white in the tail which appears as a flash when the bird snaps its tail open and shut. There are no wing bars, and the female or immature male, as is often the case, is rather nondescript, being mostly greenish yellow above and bright yellow below. Some trouble in identification may occur here, particularly between the Hooded and Wilson Warbler, a close relative. However the latter lacks the white in the tail and is a bit smaller in size. Look for the broad yellow forehead and the white in the tail of the Hooded and if it is a female there may also be a little black about the head.

The Hooded Warbler is a common breeding bird over most of the state, nesting in hardwood bottomlands, particularly those with lots of undergrowth. The nest is rather low, usually being only a few feet from the ground in a low tree or bush. It is made of dead leaves, plant fibers, grass, etc. and well located in a fork or crotch. The eggs, usually numbering 3 to 5 are creamy-white and may have small reddish-brown spots, particularly around the larger end.



In the low moist woodland and swamp areas which this bird prefers it seems to stay mostly in the lower strata or undergrowth, generally feeding not higher than about 10 feet from the ground and perhaps nesting as low as 3 feet. Of course the food of warblers consists primarily of insects and the Hooded Warbler seems to be an expert flycatcher in addition to the usual small insects picked off the bark and leaves of the shrubs and bushes of its habitat. Warblers are very active birds and devour an enormous number of small insects, etc. each day. In this respect they are certainly beneficial to the woody plants of their environment. Naturally these beautiful little feathered creatures are protected by law although that shouldn't be necessary in order to insure the well being of a bird which has both esthetic and economic value to mankind. +

BLUEGILLS Are Best

Father-Son

When it comes to introducing a youngster to the keen sport of fishing, there's nothing like a cane pole, worms, and a handy stringer to keep the fish alive and fresh. This is the time of the year when many fathers start their sons fishing. Although small in size, these plentiful fish are found in virtually every freshwater lake, creek and bayou. In the eyes of a boy they are big, opening the way to future years of fishing pleasure. Fishing for bluegills also brings about a close companionship between father and son that will last for a lifetime.